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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,368	07/09/2001	Nithyalakshmi Sampathkumar	MS180587.1	6483

27195 7590 10/27/2006

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EXAMINER	
HILLERY, NATHAN	
ART UNIT	**PAPER NUMBER**
2176	

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/901,368	SAMPATHKUMAR ET AL.	
	Examiner	Art Unit	
	Nathan Hillery	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *18 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: RCE filed on 10/18/06.

2. Claims 1 – 19 are pending in the case. Claims 1 and 19 are independent.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/15/06 has been entered.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1 – 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

6. Claims 1 - 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1 - 19 have no practical application as claimed because there is no physical transformation and no production of a concrete, useful and tangible result.

a. The result of the claimed invention remains in the abstract and is not made available to the user; thus it is not tangible.

b. The claims appear to be in the preliminary stages and fall short of the disclosed practical utility. In other words, the claims fail to fulfill and/or reflect the specific, substantial, and credible utility sought by the disclosed invention, and thus do not produce a useful result.

7. Consequently, the claims are nonstatutory. The claims simply recite transforming and selectively pulling and/or pushing data without producing a concrete, useful, **and** tangible result.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically teach that or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over ADO.NET (English translation) and further in view of Omoigui (US 20030126136 A1).

10. **Regarding independent claim 1**, ADO.NET teach that XML data is transformed into a data set object (p 4), which meets the limitation of **a transformer that transforms one or more input XML items in a first format to one or more transformed XML items in one or more second formats**.

11. ADO.NET teach that the XMLDataDocument is created by reading the entire contents of the XML data file (pp 16 and 17), which meets the limitation of **the one or more input XML items comprise a subset of XML items contained in a XML document** (pp 16 and 17).

12. ADO.NET does not explicitly teach that **an output manager that facilitates at least one of selectively pulling and pushing a subset of the one or more input XML items prior to transforming the one or more input XML items**.

13. However, Omoigui teaches that a Query Manager and Results Browser that allow for information to be retrieved from a data store and displayed as a list of objects. The Results Browser preferably obtains one or more XML files from the Query Manager and merges these into a single XML file that represents a list of objects (Column 40, paragraph 0759), which meets the limitation of **an output manager that facilitates at least one of selectively pulling and pushing a subset of the one or more input XML items prior to transforming the one or more input XML items**.

14. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of ADO.NET with the invention of Omoigui because such a combination would provide the readers of ADO.NET with *an integrated and seamless implementation framework and resulting medium for knowledge retrieval, management, delivery and presentation* (Column 5, paragraph 0071).

15. **Regarding dependent claim 2**, ADO.NET does not explicitly teach that **the transformer comprises an action frame stack that holds one or more actions, an**

event state machine that tracks state associated with transforming the one or more XML items and an event processor that receives events generated in processing the one or more actions stored in the action frame stack.

16. However, Omoigui teaches that the system provides support for authentication, authorization, auditing, data privacy, data integrity, availability, and non-repudiation by employing standards such as WS-Security. WS-Security provides a platform for security with XML Web Service applications using standards in the XML Web Service protocol stack. This includes encrypting method calls from clients, support for digital signatures, authenticating the calling user before granting access to an Agency's Semantic Network and XML Web Service methods, etc. (paragraph 0367), which meets the limitation of **the transformer comprises an action frame stack that holds one or more actions, an event state machine that tracks state associated with transforming the one or more XML items and an event processor that receives events generated in processing the one or more actions stored in the action frame stack**.

17. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of ADO.NET with the invention of Omoigui because such a combination would provide the readers of ADO.NET with *an integrated and seamless implementation framework and resulting medium for knowledge retrieval, management, delivery and presentation* (Column 5, paragraph 0071).

18. **Regarding dependent claim 3**, ADO.NET does not explicitly teach that **a compiler that compiles one or more style sheets and produce one or more**

actions that can be employed by the transformer in processing associated with transforming the one or more input XML items.

19. However, Omoigui teaches that effectively, SQML interpreter "compiles" the SQML file before "executing" it. The client uses the XSLT templates in the "<skin>" tags to display the information for each declared object type. Any returned objects that do not have a declared Skin are displayed with the default Skin of the object type or, in the case of a single Agent entry, that of the Agent (paragraph 0971), which meets the limitation of **a compiler that compiles one or more style sheets and produce one or more actions that can be employed by the transformer in processing associated with transforming the one or more input XML items**.

20. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of ADO.NET with the invention of Omoigui because such a combination would provide the readers of ADO.NET with *an integrated and seamless implementation framework and resulting medium for knowledge retrieval, management, delivery and presentation* (Column 5, paragraph 0071).

21. **Regarding dependent claim 4**, ADO.NET does not explicitly teach that **the compiler resolves one or more external references in the one or more style sheets**.

22. However, Omoigui teaches that context arguments are resolved by the client-side SQML compiler at run-time in which the arguments can include references to local

or remote context (paragraph 0274), which meets the limitation of **the compiler resolves one or more external references in the one or more style sheets**.

23. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of ADO.NET with the invention of Omoigui because such a combination would provide the readers of ADO.NET with *an integrated and seamless implementation framework and resulting medium for knowledge retrieval, management, delivery and presentation* (Column 5, paragraph 0071).

24. **Regarding dependent claim 5**, ADO.NET teach that the data provider provides the data from a data store (p 5 – upper right hand corner), which meets the limitation of **the input XML items are input from one or more data stores**.

25. **Regarding dependent claim 6**, ADO.NET teach that an XpathNavigator is created to abstract data from the xml data set via an XpathNodeIterator by employing a loop (p 19), which meets the limitation of **an input abstracter that exposes data stored in the one or more data stores in a common representation**.

26. **Regarding dependent claim 7**, ADO.NET teach that an XpathNavigator is created to abstract data from the xml data set via an XpathNodeIterator (p 19), which meets the limitation of **the input abstractor abstracts a reference to a node within an Xpath document**.

27. **Regarding dependent claims 8**, ADO.NET teach that an XpathNavigator is created to abstract data from the xml data set (p 19), which meets the limitation of **the input abstractor exposes the data stored in the one or more data stores as a data model and infoset**.

28. **Regarding dependent claim 9**, ADO.NET teach that an XpathNavigator is created to abstract data from the xml data set and sends the data to an XSLT (p 19), which meets the limitation of **the input abstractor provides a cursor model over data stored in a data store to facilitate presenting a stream of nodes to the transformer**.

29. **Regarding dependent claims 10**, ADO.NET teach that an XpathNavigator is created to abstract data from the xml data set (p 19), which meets the limitation of **the input abstractor provides a virtual node that can be employed to traverse the stream of nodes**.

30. **Regarding dependent claim 11**, ADO.NET teach that an XpathNavigator is created to abstract data from the xml data set (p 19), which meets the limitation of **the input abstractor is an XpathNavigator**.

31. **Regarding dependent claim 12**, ADO.NET teach that SQL is used to query xml items and store them to an XML data set and that each node in the xml dataset is

visited by employing an XpathNodeIterator (pp 18 – 19), which meets the limitation of **a node selection abstractor that dynamically constructs a subset of input XML items from a set of input XML items, where the subset of input XML items are responsive to a query**.

32. **Regarding dependent claim 13**, ADO.NET teach that each node in the xml dataset is visited by employing an XpathNodeIterator (pp 18 – 19), which meets the limitation of **the node selection abstractor facilitates navigating the subset of input XML items**.

33. **Regarding dependent claim 14**, ADO.NET teach that each node in the xml dataset is visited by employing an XpathNodeIterator (pp 18 – 19), which meets the limitation of **the node selection abstractor is an XpathNodeIterator**.

34. **Regarding dependent claim 15**, ADO.NET teach that SQL is used to query xml items and store them to an XML data set (pp 18 – 19), which meets the limitation of **an optimized data store that stores one or more XML items in a manner that facilitates minimizing processing associated with constructing the subset of input XML items via a query** (pp 18 – 19).

35. **Regarding dependent claim 16**, ADO.NET teach that Xpath document is created and used to store and manipulate the xml data set (pp 18 – 19), which meets

the limitation of **the optimized data store stores data in a data representation format that facilitates optimizing an Xpath query**.

36. **Regarding dependent claim 17**, ADO.NET teach that Xpath document is created and used to expand the items in the xml data store so that they can be transformed using an XSLT (pp 18 – 19), which meets the limitation of **the data representation format comprises expanded XML entities, deleted XML declarations and DOM model data converted to Xpath model data**.

37. **Regarding dependent claim 18**, ADO.NET teach that Xpath document is created and used to store and manipulate the xml data set (pp 18 – 19), which meets the limitation of **the optimized data store is an XpathDocument**.

38. **Regarding independent claim 19**, the claim incorporates substantially similar subject matt as claims 1, 3 – 6, and 12, and is rejected along the same rationale.

Response to Arguments

39. Applicant's arguments filed 9/15/06 have been fully considered but they are not persuasive.

40. Applicant argues that ADO.Net fails to teach **a transformer that transforms one or more input XML items in a first format to one or more transformed XML items**

in one or more second formats (p 7, first full paragraph) because the transformed XML item is not an XML item.

41. The Office disagrees.

42. It should be noted that by Applicant's own admission, ADO.Net does teach a transformation from XML data to a data set object (p 7, first full paragraph, lines 8 – 10). Within the broadest, reasonable interpretation in light of the specification, the claim does not necessarily require that "the transformed XML item" be an actual XML item. The Office has interpreted the claimed "transformed XML item" to be representative of the result of transforming "the input XML item" where that result may or may not be an XML item. For instance, the claim recites "input XML items in a first format" in which the first format can be interpreted as XML and "transformed XML items in one or more second formats" in which the second format is in a format other than XML such as the data set object of ADO.Net.

43. Regarding the rejection under 35 USC 101 for being nonstatutory:

To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways:

The claimed invention "transforms" an article or physical object to a different state or thing.

The claimed invention otherwise produces a useful, concrete and tangible result (Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, p 19).

The Office maintains that the claims do neither.

Physical transformation occurs when the claimed invention transforms an article or physical object to a different structural state or thing. Physical transformation is an indication that the claim is statutory because such a transformation itself is a useful, tangible and concrete result. However, data transformation is not a physical transformation. Data, by definition, is intangible, so the claim must go further to have a tangible result. Thus, manipulation of data in a computer is not, in and of itself, sufficient for establishing that a claim is statutory. Likewise, a physical act is not necessarily a physical transformation.

The next step in analysis involves determining whether the claims produce a concrete, useful and tangible result.

Regarding a useful result, the disclosure may have met the requirements for utility, but what's claimed does not produce a result that reflects it or is too preliminary in and of itself to be a useful result. In this case, the claimed invention does not provide a useful result even though an appropriate utility has been disclosed, and a rejection as non-statutory is appropriate.

Specifically, by applicant's own admission claims 1 and 19 recite independent acts that "facilitate" the processing of XML items from one format to a second format "that can be" output from the transformation system (Arguments, p 7, second paragraph, lines 9 - 13). The Office maintains that without actually performing or without necessarily requiring that the XML items be processed or output, the result is not useful

and has no practical application. The claimed invention is too preliminary to provide the practical application intended by Applicant.

In addition, when the examiner has reason to believe that the claim is not for a practical application that produces a useful result, the claim should be rejected, thus requiring the applicant to distinguish the claim from the three § 101 judicial exceptions to patentable subject matter by specifically reciting in the claim the practical application. In such cases, statements in the specification describing a practical application may not be sufficient to satisfy the requirements for section 101 with respect to the claimed invention. Likewise, a claim that can be read so broadly as to include statutory and nonstatutory subject matter must be amended to limit the claim to a practical application. In other words, if the specification discloses a practical application of a § 101 judicial exception, but the claim is broader than the disclosure such that it does not require a practical application, then the claim must be rejected (Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, p 21).

Regarding a tangible result, the tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result (Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, p 21).

Again, by applicant's own admission claims 1 and 19 recite independent acts that "facilitate" the processing of XML items from one format to a second format "that can be" output from the transformation system (Arguments, p 7, second paragraph, lines 9 - 13). The Office maintains that without actually performing or without necessarily requiring that the XML items be output, the result is not made available to the user and thus not tangible and has no practical application. The claimed invention remains in the abstract and does not provide the practical application intended by Applicant.

44. Regarding Applicant's arguments that the transformed XML items as claimed must be XML items based on the following disclosure:

> Referring initially to Fig. 1, a system 100 for transforming XML items from one representation to another is illustrated. The system 100 includes a transformer 120 that is adapted to accept XML items from a data source 110 and to apply one or more transformation instructions from a style sheet 130 to the XML items and produce transformed XML items that can be output to a destination data store 140 (Specification, p 10, lines 19 - 23).

Neither the Specification nor the claims necessarily require that the "transformed" XML items be XML items after the transformation. Within the broadest, reasonable interpretation in light of the specification, XML is interpreted as a format. Therefore, the transformed XML items are in a different format, which can be something other than XML especially if it is not specifically claimed.

45. In response to Applicant's arguments that ADO.Net is not an enabling reference (p 10, first full paragraph) because the reference as disclosed would involve undue experimentation.

46. The Office disagrees.

47. It is believed enabling to the level necessary to provide the teachings relied upon by the Office. It should be noted that the Applicant has merely made conclusionary statements without providing any factual evidence or other specific reasons as to how and why the reference is not enabled for the features relied upon by the Office. Instead, the lack of enablement argument appears to be merely Applicant's opinion.

48. Applicant argues that ADO.Net fails to teach **a subset of XML items contained in a XML document** (p 10 and 11) because all of the XML items are processed rather than a subset.

49. The Office disagrees.

50. It should be noted that even if the Office agrees with Applicant's description of ADO.Net that the entire contents are read in (p 10, last line – p 11, first line), then the cited portions of ADO.Net still read on the claim, since the subset of a set can be the entire set. Again, within the broadest, reasonable interpretation in light of the specification, the claim does not necessarily require that the "subset of XML items contained in a XML document" be less than or different from all the XML items contained in the document.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (571) 272-4091. The examiner can normally be reached on M - F, 10:30 a.m. - 7:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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